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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,560	04/12/2001	David N. Rudo	RUDO117125	9141

26389 7590 09/23/2002

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EXAMINER	
YOON, TAE H	

ART UNIT	PAPER NUMBER
1714	7

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

1 of 7

Office Action Summary

Application No.	Applicant(s)
09/801,560	Rudo
Examiner	**Group Art Unit**
T. Yoon	1714

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 7-16-02.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-26 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-26 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

Note new examiner in charge of the case.

The specification is objected since the subsection, Brief Description of Drawings, is missing.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 6-9, 11 and 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited abbreviation, GMA, in claim 3 is indefinite and a full chemical name is required at least in the first occurrence. With respect to claims 6-9 and 16-19, the use of trademarks and tradenames in the claims is improper because the manufacturer is under no obligation to continue making the same material under a given trademark nor to continue selling anything under a given trademark. The discontinued use of the trademark or the changing of the material sold under the trademark renders the claim meaningless. See MPEP 608.01(v). With respect to claim 11, it is unclear whether the recited dental structure is an artifical one or real tooth since the claim recites said dental structure has a resin.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-15, 21, 24 and 25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hamilton et al (US 5,314,492).

Preamble alone has no probative value, any structure would meet the invention.

Hamilton et al teach a composite shell comprising triaxial matrix of carbon fiber impreganated with a thermoplastic polymer at col. 6, lines 5-8 and 34 to col. 7, line 11.

Thus, the instant invention lacks novelty.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudo (US 5,176,951) in view of Silvestrini et al (US 4,610,688) or Kapadia et al (US 4,816,028), and further in view of Head (US 6,250,193) with or without Akahane et al (US 5,962,550).

Rudo is discussed in the previous office action. The figure of Rudo does not show a detailed structure, however, the cross-section is looked like a triaxial configuration. Rudo also teaches Leno weaves at col. 5, lines 27-41 wherein various patents are incorporated by reference. One of said patent, US 4,816,028 to Kapadia et al, teach the Leno weave having the triaxial configuration in Fig. 3. Silvestrini et al teach the triaxial configuration in Figs. 1 and 2. Furthermore, Head teaches that the triaxial configuration yields a product having superior mechanical properties, principally strength and stiffness, to the biaxial configuration at col. 1, lines 27-31. The braided materials (Kevlar and Spectra) and resins (acrylic resins such as bis-GMA resin) taught by Rudo are also used in the instant invention. Thus, said braided materials and resins would have a similar refractive index as in the instant invention. Also, it is well known in the art that the finished dental product should exhibit a homogeneous hue and color which require the same or a similar refractive index as taught by Akahane et al.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the triaxial braided or woven fabric configuration taught by Silvestrini et al or Kapadia et al in Rudo since Rudo teaches Leno weaves and reinforcing a dental appliance or prosthesis comprising a resin and since it is well known in the art that the triaxial configuration yields superior mechanical properties to the biaxial configuration as taught by Head and since the figure of Rudo shows multiaxial braided fabric and since it is well known in the art that the finished dental product should exhibit a homogeneous hue and color which require the same or a similar refractive index as taught by Akahane et al.

Applicant asserts that Silvestrini et al is directed to prostheses which are used in repairing or replacing soft tissue and that aid prostheses must be both strong and elastic. Thus, combination of Silvestrini et al with Rudo who teaches both strong and inelastic properties is improper. However, the examiner disagrees with applicant's assertion since Rudo clearly teaches multiaxial fabric and refers to other patents having the triaxial configuration and since said properties such as elasticity is dependent on the matrix resin used, not on the filling fabric. The same elastic fabric would yield different properties with different matrix resins. For example, said elastic fabric in a thermoplastic resin would yield an elastic property, but in a thermsetting resin, it would yield a inelastic property. In another words, the (in)elastic property of the filled resin composition is dependent on the matrix resin used.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY/September 19, 2002

Tae H. Yoon

TAE H. YOON
PRIMARY EXAMINER